The Linear Regression and Time Series course offered by the Department of Mathematics, Statistics, and Actuarial Science is an upper level course required for both our Statistics and Actuarial Science majors. The course has been redesigned to emphasize the use of the software R in analyzing real world data. It is taught in a computer lab and students engage with the software in and out of class. In addition to weekly content quizzes and exams, there are two group projects where the students will be using R to analyze real datasets, and an R practical exam at the end of the semester. In this talk I will present the tools and activities that were implemented to provide a computational experience to learn linear regression and time series using R. (Received September 18, 2018)